

Lantau Conservation Fund

Research Project

Project Number	RE-2022-14
Recipient Organisation	The Chinese University of Hong Kong
Project Title	What is the Contribution of Terrestrial Vegetated Ecosystems on Lantau Island to Carbon Storage and Sequestration?
Project Description*	<p>Terrestrial vegetated ecosystems (e.g. forests, shrublands, grasslands, etc.) are some of the most promising nature-based climate solution owing to their considerable areal coverage and high rates of carbon dioxide uptake. Yet, there is at present a paucity of local field studies quantifying the magnitude and controlling factors of carbon storage and sequestration in the terrestrial ecosystems in Hong Kong. Moreover, the effect of ecological succession over time on the carbon sequestration potential of terrestrial forests is poorly understood.</p> <p>The objectives of this research are to: (i) quantify the amount of carbon storage in the vegetation and soils in various types of terrestrial vegetated ecosystems on Lantau Island, including forests, shrublands, and grasslands; (ii) determine the magnitude of carbon storage in different types of terrestrial forests, including fung shui forests, lowland secondary forests, montane forests, and plantations; (iii) examine the influence of ecological succession and stand age on the magnitude of carbon storage and sequestration by terrestrial forests; and (iv) estimate the total carbon storage in the vegetation and soils of all terrestrial vegetated ecosystems across the whole Lantau Island.</p>

	The results of this study will improve our knowledge of the magnitude of carbon storage and sequestration in the terrestrial vegetated ecosystems on Lautau Island. The findings will provide useful insights on the potential benefits of forest conservation and management to achieve carbon neutrality by 2050 and mitigate future climate change.
Project Period	1 May 2024 to 30 April 2027 (36 months)
Approved Grant	\$2,169,640

*The project description is provided by the project proponent